MOUND PLANT

Miamisburg, Montgomery County, Ohio

Office: Ohio Operations Office

Size: 306 acres (0.5 square mile)

NPL Status: Placed on the NPL on November 21, 1989.

Mission: The Mound Plant has been in continuous use since 1948. Its main mission was to manufacture non-nuclear components and tritium-containing components for nuclear weapons that were assembled at another site. Other activities include the separation, purification, and sale of stable isotopes of the noble gases; solar energy; fossil fuels; nuclear safeguards; waste management; heat source testing (plutonium); and fusion fuel systems. In 1995, the primary mission changed to cleanup to industrial standards, as approved by EPA, in order to sell the site for industrial use.

Overview of Environmental Conditions: Tritium and VOC contamination of onsite and offsite groundwater and soils contaminated with residual plutonium from past onsite operations.

CERCLA/RCRA Remediation Funding in FY 98: $86,622,000

Progress in Reaching Interagency Agreement

DOE and EPA Region V executed an FFA on August 6, 1990. The State of Ohio expressed an interest in developing a three-party agreement, with the State of Ohio being added to the FFA. Negotiations were held on the development of the new three-party FFA, which were culminated by the signing of this new agreement on July 15, 1993.

Specific Cost Estimates and Budgetary Proposals Involved in Each Interagency Agreement

Funds budgeted for environmental restoration under the FFA total $89.0 million of appropriated funding for FY 99 and $93.4 million for FY 00 according to the request in the President's Budget.

Public Comments Regarding Interagency Agreements

Prior to FY 93, limited public comments were received on the original 1990 FFA. Most of those comments inquired why the site was placed on the NPL. Limited comments were received during the FY 93 comment period for the new three-party FFA (no formal comment period in FY 94). EPA Region V, the State of Ohio, and DOE evaluated these comments and determined that no modifications to the FFA were required.

Progress in Conducting Remedial Investigations/ Feasibility Studies

The Mound Plant was originally divided into nine OUs that separated the plant into geographic units. In FY 96, Mound rebaselined its cleanup effort to be more action-oriented to result in an acceleration of cleanup at a reduced cost. The site is now divided into "Onsite Areas," "Offsite Areas," and a "Groundwater" element.

The Onsite Areas incorporate nearly all work activities inside the fence line of the plant associated with areas previously identified in OUs 2, 5, and 6. The Onsite Areas contain 19 release blocks (letters A through S) containing approximately 219 potential release sites that will undergo a Removal Site Evaluation process to determine site uncertainties, potential data needs, and ultimately the appropriate response action required under CERCLA. The potential release sites are evaluated to determine:

- Sites that require No Further Assessment based on existing information (i.e., no problem exists at the site);

- Sites for which a response action is warranted based on existing information (i.e., a problem does exist); and

- Sites for which there is insufficient information available to make a determination (i.e., not able to determine if there is a problem).

The Offsite Work addresses the remediation of the plutonium-contaminated soils and sediment in the Miami-Erie Canal located adjacent to the Mound Plant (within the City of Miamisburg) resulting from a ruptured waste process line in 1969 and the remaining effort of the RI/FS process for OU 9. The groundwater element addresses the implementation of the groundwater remedy for the VOCs found in a portion of the Buried Valley Aquifer underlying the southwest corner of the plant, also known as OU 1, for which a ROD was completed in FY 95.

Progress in Conducting Remedial Actions

Field work for the Miami-Erie Canal Removal Action was initiated in FY 96. This included clearing the area of trees and brush, constructing new access roads, installing a new storm water runoff channel, and installing a mobile laboratory.

Design of a permanent air sparging/soil vapor extraction and high vacuum extraction remedial system was initiated for the implementation of the groundwater remedy for the VOCs addressed in the OU 1 ROD.

The Area 7 Actinium Removal Action removed and shipped 569 boxes of contaminated soil.

Contaminated soils associated with the Fuel Oil Storage Removal Action have been completely removed, and approximately 200 cubic yards of petroleum-contaminated soil have been successfully treated in a bioremediation facility.

In FY 98, EPA, Ohio EPA and DOE determined that two potential release sites required a response action, and one was determined to require further assessment before a decision could be made about the action. The Miami-Erie Canal Removal Action, the largest to date at the Mound Plant, continued, with excavated soil being shipped by rail (367 rail cars) to Envirocare at Utah, representing 816 thousand cubic feet of plutonium-contaminated soil. And Actinium (Potential Release Site [PRS] 86) removal was also concluded, along with a Thorium removal being initiated (Building 21 soils PRS). The remainder of the removals awaits availability of funds.

Air Sparging/Soil Vapor Extraction was installed to enhance and supplement the OU 1 ROD remedy which required pumping and treating volatile organic compound contaminated groundwater for the next 30 years. This system has extracted 2,500 pounds of solvent.